On page 4, in the paragraph beginning on line 26, in line 27, insert --usable-- before "higher".

Another object of the present invention is to provide a fuel additive which allows a fixed amount of fuel to produce a usable higher BTU output.

On page 6, in the paragraph beginning on line 1, in line 7, change "emulsifier" to --demulsifier--.

A stabilizing agent is provided to prevent repolymerization of the hydrocarbons in the fuel. Repolymerization of hydrocarbons begins immediately after the fuel is refined. As the repolymerization occurs, submicronic particles agglomerate and eventually result in sludge formation. Even the smaller particle agglomeration may result in clogging of filters. A high molecular weight amine which is the preferred stabilizing agent, prevents such repolymerization. The amine has added benefits of acting as a detergent, dispersant, and demulsifier. Additionally, it acts as a corrosion inhibitor to prevent iron (which can be present both naturally in the fuel or as part of the invention as the organometallic compound) from oxidizing. This has a side benefit of inhibiting bacteria (naturally present in the fuel) from feeding on nitrogen, sulfur, and iron oxides in the fuel.

On page 8, in the paragraph beginning on line 9, in line 13, change "parathinic" to --parafinic--.

The high flash point solvent has a strong solvent action, therefore, it is preferred to use a lubricant when the composition contains the solvent. However, a lubricant may be provided even in the absence of the solvent. The lubricant utilized will help provide the required lubricating properties for operation of diesel generators, pumps, and the like. It is preferred that a mineral oil or a synthetic oil be provided as the lubricant. When a mineral oil is utilized, it is preferred that the oil be naphthenic, not parafinic. It is further preferred that when a synthetic oil is utilized, that the oil be a petroleum derivative, such as an aliphatic hydrocarbon based synthetic oil. Additionally, it is most preferred that the lubricant utilized maintain a low viscosity, preferably 20 weight or less. A preferred synthetic oil is Shellflex® 3271, a petroleum hydrocarbon, highly refined oil in a hydrotreated heavy naphthenic distillate solution.

On page 8, in the paragraph beginning on line 19, in line 23, change "0.5" to --0.05--.

The lubricant of the present invention preferably comprises between approximately 0.01 and 0.25 parts by weight of the total composition. The lubricant more preferably comprises between approximately 0.03 and approximately 0.1 parts by weight, and most preferably comprises approximately 0.05 parts by weight.

On page 9, in the paragraph beginning on line 12, in line 13, change "0.05" to --0.005 parts--, and change "0.1 parts" to --0.3 parts--.

The metal deactivator of the present invention preferably comprises up to approximately 0.2 parts by weight of the total composition. The metal deactivator more preferably comprises between approximately 0.005 parts and approximately 0.15 parts by weight, and most preferably approximately 0.03 parts by weight.

On page 12, in the paragraph beginning on line 6, in lines 8 and 9, delete "The vehicles were then operated with the treated fuel as normal. After the testing time elapsed, the test procedure was duplicated for the treated portion of the evaluation."

After the baseline test, the fuel storage tanks on the locomotive were treated, from a tank added on board, at the recommended level of one ounce of the composition to forty gallons of diesel fuel (1:5000 volume ratio).

On page 12, in the paragraph beginning on line 11, in line 13, insert --again-- after "installed".

Throughout the entire fuel consumption test, an internal self-calibration of the exhaust analyzer was performed after every two sets of measurements to correct possible instrument drift. A new exhaust particulate gas filter was installed again before the baseline and treated fuel test series.

On page 13, in table 2, in line 1 of table 2, please insert ---- after each of the following: "CO", "HC", "CO_2", and "O_2". On page 13, under table 2, please insert --*Percent change.--.*

TABLE 2

UNIT #32 S	CO*	HC*	CO_2*	O_2*
RUN #1	-38.89	-41.02	-2.6	-7.5
RUN #2	-36.84	-42.86	-2.7	-7.2
RUN #3	-35.29	-39.47	-2.7	-7.3
RUN #4	-33.33	-42.11	-2.5	-6.9
RUN #5	-29.41	-41.18	-2.8	-7.5
RUN #6	-31.25	-44.0	-2.3	-7.4
RUN #7	-37.5	-41.67	-2.2	-7.6

*Percent change.

On page 13, in the paragraph beginning on line 14, in line 15, after "prior art", delete "'462 patent", and after "composition of the" delete "'462 patent" and insert therefor --prior art--.

Testing was performed on the composition of the current invention for comparison with the composition of the prior art. It was found that the composition of the prior art did not provide stabilization of the fuel for prevention of agglomerate formation comparable to the stabilization provided by the composition of the present invention.

On page 13, in the paragraph beginning on line 19, in line 20, delete "'462 patent", and insert therefor --prior art--.

Three samples of approximately 7.5 to 8.0 ml were taken containing a fuel sample. The composition of the prior art was added to one sample at a 1 to 10,000 composition to fuel ratio. The composition of the present invention was added to a second sample at a 1 to 10,000 composition to fuel ratio. A third blank sample containing only the fuel source was also prepared and the total volumes of sample equalized.

On page 14, in the paragraph beginning on line 1, in line 2, delete "a simulation for". On page 14, in line 3, delete "catalyzes" and insert therefor --promotes--.

Each sample was heat stressed at 300°F for approximately 10 minutes, then allowed to cool for approximately 10 minutes. The heat stress is accelerated aging of the sample. The heat promotes repolymerization of the fuel, thereby simulating aging. Normally, the fuel would be stored in underground tanks at approximately 55°F over a period of years.

On page 14, line 11, delete "optical units (o.u.)" and insert therefor --percent transmission--. On page 14, line 12, delete "o.u." after "48"and insert therefor --percent-- and after "21" and insert therefor --percent.--. On page 14, line 12, delete "'462 composition" and insert therefor --prior art sample--. On page 14, line 13, delete "optical units" after "24" and insert therefor --percent--. On page 14, line 13, delete "o.u." after "50" and insert therefor --percent-- and after "26" and insert therefor --percent.--. On page 14, line 14, delete "optical units" after "5" and insert therefor --percent--. On page 14, line 15, delete "o.u." after "48 and insert therefor --percent-- and after "43" and insert therefor --percent.--. On page 14, line 17, delete "'462" and insert therefor --prior art--.

The testing showed a change in opacity for the blank fuel test tube of 27 percent transmission, having an initial reading of 48 percent and an end reading of 21 percent. The prior art composition showed a change in opacity of 24 percent, having an initial reading of 50 percent, and an end reading of 26 percent. The composition of the present invention showed a change in opacity of 5 percent, having an initial reading of 48 percent, and an end reading of 43 percent. The ΔT, or change in transmission, showed only a minor change in the composition of the present invention. More drastic changes occurred in the compositions of the prior art and blank tests, indicating agglomerations within the fuel in those samples.

In the Claims:

In claim 37, line 18, change "0.02" to --0.2--.

37. (Amended) The fuel additive of claim 33 wherein said metal deactivator comprises up to approximately 0.2 parts by weight, said fuel additive having a total part by weight of 1.

In claim 38, line 22, change "0.05 and approximately 0.15" to --0.005 and approximately 0.150--.

38. (Amended) The fuel additive of claim 37 wherein said metal deactivator comprises between approximately 0.005 and approximately 0.150 parts by weight.